Technology Governance Board

Service-Oriented Architecture (SOA) and Enterprise Portfolio Mangement System (EPfMS) for JCIO Agencies

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Technology Governance Board Request

1. Discuss why a service-oriented architecture (SOA) is needed for Iowa at this time and not an enterprise architecture (EA)

2. Define what is meant by an EA and an SOA

3. Provide first steps in establishing an SOA and EPfMS

4. Conclusions and TGB decisions

Why not develop an enterprise architecture (EA) at this time?

Though an enterprise architecture (EA) was named as one of the initiatives recommended by the Enterprise Infrastructure and Personnel Assessment (EIP study):

- The development of an EA is a monumental task and a project that may take several years to develop.

- A service-oriented architecture (SOA) appears to enable an easier exchange of data while allowing agencies to retain the substantial investments in their current systems and infrastructures.

- An SOA can also be developed in a much shorter time frame than the development of a complete EA.

What is an Enterprise Architecture (EA)?

Enterprise architecture (EA) is a series of related architectures for:

- Business   - Application / Software
- Technology / Infrastructure   - Information

An architecture is the high-level definition of the structure of a system--comprised of parts, their interrelationships, and externally visible properties.

The enterprise should be treated as a system, and take the interactions among the architectures into account. Breaking a system into parts will make the task less complex, allowing specialists to focus on the parts and make progress.

What is a service-oriented architecture (SOA)?

A service-oriented architecture (SOA) is:

Applying architecture principles to a collection of services that communicate with each other.

The communication can involve either simple data passing or it could involve two or more services coordinating some activity.

Some means of connecting services to each other is needed.

What are the steps in determining Iowa's SOA?

Define the data model to be used

Identify the data that can be shared and the lawful custodians of the data

Define the publish and subscribe environment of the data-sharing web service

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What information for Iowa's SOA will be gathered by the consultant?

An outside consultant will be selected through an RFP process with funds from the TGB budget. The consultant will gather information on the data currently shared and the rules associated with sharing that data.

The consultant will gather the following for the TGB:

- Architecture for the publishing of services (service bus)
- Clearly define the data being exchanged (metadata)
- While the consultant is gathering data sharing information, data will be collected on agency data sharing applications towards developing an Enterprise Portfolio Management System (EPfMS).

What groups exist to help with the development of Iowa's SOA and EPfMS?

The Joint Council of Chief Information Officers (JCIO) contains:

Agencies which currently share data, and

Members who would logically have the ability to investigate an SOA and EPfMS.

When is the SOA and EPfMS needed?

As the TGB will be reviewing IT-related RFPs beginning in 2006, a phase 1 implementation SOA and EPfMS would be needed by that date.

The SOA developed by the RFP would be used by the TGB to evaluate data sharing concepts in the RFPs under review

The EPfMS developed by the RFP would be used by the TGB to evaluate duplication in the RFPs under review.

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RFP to develop both an SOA and EPfMS

The TGB approved the writing of an RFP that will select a consultant to provide phase 1 implementations of an SOA and an EPfMS.

An RFP work group has been formed to write the RFP with members selected from the JCIO.

The RFP scope has been defined as the development of both an SOA and EPfMS based on data sharing within JCIO agencies.

Data sharing survey for RFP development

A data sharing survey has been designed by the RFP work group and distributed to JCIO agencies for completion.

The goal of the survey is to capture data sharing currently performed among JCIO agencies.

Using the data sharing survey as a guide, pilot agencies will be selected from among the JCIO for the RFP pilot.

The RFP pilot may include all or a selected group of JCIO agencies.

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Next steps after phase 1 implementation

The RFP will require the consultant to provide a plan and template to be used for adding the remaining JCIO agencies to the SOA and EPfMS.

After the JCIO agencies have all been added, future enhancements may include adding other agencies outside the JCIO and include other data sharing (such as with the feds, counties, local governments, and other bodies). But these are future enhancements and outside the scope of the current RFP.

Conclusion

1. Finish writing the RFP.

2. TGB to approve the final RFP and authorize the funds to gain the consultant.

3. Execute the RFP and obtain the consultant.

4. Perform the phase 1 implementation of the SOA and EPfMS for the JCIO agencies.